



U.S. Department  
of Transportation  
  
Research and  
Special Programs  
Administration

**FEB 12 1999**

400 Seventh Street, S.W.  
Washington, D.C. 20590

DOT-E 10776  
(THIRD REVISION)

**EXPIRATION DATE: February 28, 2001**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: P.S.I. Plus, Inc.  
Middletown, CT
2. PURPOSE AND LIMITATIONS:
  - a. This exemption authorizes the manufacture, mark, sale and use of the packaging described in paragraph 7 below for use in the transportation in commerce of hazardous materials described in paragraph 6 below. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302(a)(1), 173.304, 175.3, 178.42.
5. BASIS: This exemption is based on the application of P.S.I. Plus, Inc. dated December 14, 1998, submitted in accordance with § 107.109.

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Page 26. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Carbon dioxide	2.2	UN1013	N/A
Ethylene, compressed	2.1	UN1962	N/A
Oxygen, compressed	2.2	UN1072	N/A
Refrigerant gases--the proper shipping name listed in the hazardous materials table in 49 CFR 172.101.	2.2*	as appropriate	as appropriate

\*No Division 2.3 refrigerant gases are authorized.

Note: The technical name of the material must be entered in parentheses in association with the basic generic description, in accordance with § 172.203(k).

7. SAFETY CONTROL MEASURES: Packaging prescribed is a non-DOT specification cylinder made in conformance with the requirements for DOT Specification 3E cylinder under §§ 178.35 and 178.42 except as follows:

§ 178.42(a) Seamless tubing partially closed in at either end with closure on either end by circumferentially welded end caps. Cylinder not over 90 cubic inch water capacity with service pressure of 1800 pounds per square inch. Longitudinal seams and welded tubing prohibited.

§ 178.42(b) Steel.

(a) Aluminum killed 1010 seamless tubing of uniform quality. Content percent for the following not over: Carbon 0.12, manganese 0.50, phosphorus 0.04, and sulfur 0.05 (ladle analysis), or

(b) Cold drawn seamless type 4130 alloy tubing. Content percent for the following not over: Carbon 0.35, manganese 0.90, phosphorus 0.04, sulfur 0.05, silicon 0.35, chromium 1.10, and molybdenum 0.25.

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- § 178.42(d)            The last sentence is deleted.
- § 178.42(f) (2)        The cylinder referred to in paragraph (f) (1) of this section must burst at a pressure higher than 6,000 psig without fragmenting or otherwise showing lack of ductility, and one additional cylinder in the same lot of 500 must be subjected to a 3,000 psi test and subsequently to a flattening test between knife edges with the circumferential joint at a right angle to the plates. The knife edges shall be 60° wedge shaped rounded to ¼ inch radii. Flattening to six times the thickness of the seam joint without cracking is required. The last sentence on changes in the inspector's report is deleted.
- § 178.42(f) (3)        Other cylinders must be examined under hydrostatic pressure of at least 3,000 psig and show no distortion or indication of defects. The pressure must be maintained for at least 30 seconds and sufficiently longer to ensure complete examination.
- § 178.42(g)            All cylinders must be tested for leakage by internal air or gas at 1,800 psig following the hydrostatic test. Leakers must be rejected.
- § 178.42(i)            Marking: Applies but substitute "DOT-E 10776" for "DOT 3E" in the marking.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

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- c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.
  - d. Each packaging manufactured under the authority of this exemption must be marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.
  - e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.
  - f. Charging of cylinders with liquefied gases must meet requirements in § 173.304.
  - g. Each cylinder must be secured against rotational movement within the overpack. Cylinders must be shipped in strong outside packaging complying with § 173.301(k).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger aircraft.
10. MODAL REQUIREMENTS:
- a. A current copy of this exemption must be carried aboard each vessel and aircraft used to transport packages covered by this exemption. The shipper must furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.
  - b. Ethylene and chlorflourocarbons classed as flammable gas are forbidden for shipment by passenger-carrying aircraft.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. Section 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
  - o Registration required by 49 CFR 107.601 et seq., when applicable.

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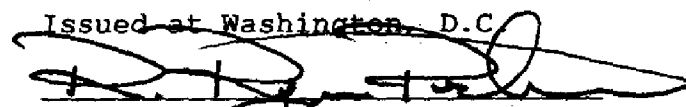
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Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.

  
for Alan I. Roberts  
Associate Administrator  
for Hazardous Materials Safety

2/12/99  
(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

Dist: FHWA, FAA, FRA, USCG  
PO:sdC